AUSTIN POLICE RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF
DECEMBER 31, 2001

AUGUST 20, 2002

Rudd and Wisdom, Inc.

CONSULTING ACTUARIES

Mitchell L. Bilbe, F.S.A.
Amanda L. Chipuk, A.S.A.
Philip S. Dial, F.S.A.
Charles V. Faerber, F.S.A., A.C.A.S.
Mark R. Fenlaw, F.S.A.
Carl L. Frammolino, F.S.A.
Joe C. Lopez, A.S.A.
Robert M. May, F.S.A.

7718 Wood Hollow Drive, Suite 200
Austin, Texas 78731-1601

Post Office Box 26008
Austin, Texas 78755-0008

Phone: (512) 346-1590
Fax: (512) 345-7437
E-mail: rw@ruddwisdom.com

J. Christopher McCaul, F.S.A.
Edward A. Mire, F.S.A.
Rebecca B. Morris, A.S.A.
Michael J. Muth, F.S.A.
Julie L. Normand, A.S.A.
Robyn C. Richards, A.S.A.
Ronald W. Tobleman, F.S.A.
David G. Wilkes, F.S.A.

August 20, 2002

Police Retirement Board
Austin Police Retirement System
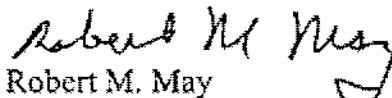Post Office Box 684808
Austin, Texas 78768

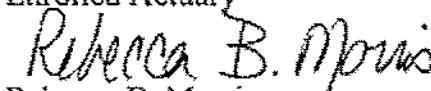Members of the Board of Trustees:

In accordance with the requirements of Article 6243n-1 in the state law, which governs the Austin Police Retirement System, an actuarial valuation of the System as of December 31, 2001 has been completed.

The results of the December 31, 2001 actuarial valuation are described in the Summary section of the report. A comparison of the current valuation with the December 31, 1999 valuation is also discussed in this section. The comparative valuation balance sheets are shown in Exhibit 1. Exhibit 2 shows a fifteen-year projection of the growth of the System. Exhibits 3 through 6 summarize the System's assets and development of the actuarial value of assets. Data on both active and retired police officers is contained in Exhibits 7 through 11 with Exhibit 12 showing a historical comparison of the actuarial accrued liability for the active and retired officers.

A summary plan description based on the plan effective September 1, 2001 is included as Exhibit 13. The actuarial methods and assumptions are described in Exhibits 14 through 19, which include a description of the assumptions that have changed since the prior valuation. Exhibit 20 defines certain actuarial terms used in this report. The disclosures required in accordance with Statement Number 25 of the Governmental Accounting Standards Board for the System's annual report are in Exhibit 21. The disclosures required in accordance with Statement Number 27 of the Governmental Accounting Standards Board for the City of Austin's financial statements are included in Exhibit 22.

Respectfully submitted,

Robert M. May
Fellow, Society of Actuaries
Enrolled Actuary

Rebecca B. Morris
Associate, Society of Actuaries
Enrolled Actuary

RMM;RBM:jt
Enclosure

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Austin Police Retirement System
Actuarial Valuation as of December 31, 2001

Summary

Austin Police Retirement System
Results of December 31, 2001 Valuation

The valuation balance sheet as of December 31, 2001, shown in Exhibit 1, reveals that the plan has an unfunded actuarial accrued liability of $62,786,974 based on audited assets. Total contributions of 27% of pay, 9% by the police officers and 18% by the City of Austin, are contributed to the System each year. The normal cost (defined in Exhibit 21) of present benefits for each police officer is 20.143% of pay.

Since the 27% of pay contributed on behalf of each police officer is more than the normal cost, the remaining 6.857% of pay can be applied against the plan's unfunded actuarial accrued liability. Assuming that the total payroll increases at the rate of 4% per year in future years attributable to general wage increases, application of this percentage of payroll will cause the unfunded actuarial accrued liability to be amortized in 18.8 years.

The valuation balance sheets in Exhibit 1 compare the actuarial condition of the plan on December 31, 2001 with the condition on December 31, 1999. The valuation as of December 31, 2001 is based on the plan provisions effective on September 1, 2001 (summarized in Exhibit 13). This valuation does reflect ad hoc pensioner COLAs granted January 1, 2002 but does not reflect any ad hoc pensioner COLAs which may be granted January 1, 2003 or annually thereafter. The results shown for the December 31, 1999 valuation include adjustments made to reflect the September 1, 2001 statute changes and the ad hoc pensioner COLAs granted effective January 1, 2001 and 2002.

Between these two valuations, the unfunded actuarial accrued liability (UAAL) has increased by $12,480,260 (from $50,306,714 to $62,786,974). The primary reasons for this change, which have offsetting effects, are as follows:

1. The general wage increases for officers on October 1, 2000, April 1, 2001, October 1, 2001 and April 1, 2002 were 5.4%, 1%, 4% and 4%, respectively. Since the actuarially assumed general wage increase was 4% per year, the unfunded liability is approximately $17,200,000 more than expected. Although the change in the UAAL is significant because the pay increases resulted in greater than expected projected benefit payments, the aggregate payroll also grew as a result of these pay increases. Therefore more contributions will be made to the fund and the portion of the total contributions in excess of the normal cost percentage available to amortize the UAAL increases and partially offsets the increasing effect on the amortization period. The net effect of the larger than expected pay increases resulted in an increase in the amortization period of 3 years.

2. The average annual market value rate of return, net of all expenses, during the two year period is estimated at 1.2%. However, the actuarial value of assets used in the valuation and the determination of the amortization period is based on an adjusted market value. In the last valuation, the actuarial value of assets was less than the market value. In the current valuation, the actuarial value of assets is greater than the market value because a larger portion of the gain in 1999 is now recognized while only

small portions of the relatively small loss in 2000 and relatively large loss in 2001 are now recognized. The resulting average annual rate of return on the actuarial value of assets, net of expenses, as of December 31, 2001 is estimated at 10.5% compared to the assumed rate of return of 8.25%. Therefore, the actuarial value of assets as of December 31, 2001 is larger than expected and caused a decrease in the UAAL of approximately $11,200,000 and caused a decrease in the amortization period of approximately 5 years.

3. The change in the actuarial assumption of the assumed rate of investment return from 8.25% to 8% caused an increase in the UAAL of $8,800,000 and caused the amortization period to increase by approximately 6 years.

4. Total contributions in excess of those required to pay the annual normal cost decreased the UAAL approximately $10,400,000.

5. Interest accumulation on the unfunded actuarial accrued liability during the two year period between the valuations had the effect of increasing the UAAL approximately $8,600,000.

The balance sheets in Exhibit 1 indicate that the number of years required to amortize the system's UAAL has decreased from 20.3 years as of December 31, 1999 (based on the plan provisions effective September 1, 2001 and reflecting the previous COLAs provided) to 18.8 years as of December 31, 2001. Since two years have passed since the last valuation, a two-year reduction in the amortization period to 18.3 years would be expected if the experience of the system had been exactly as anticipated. While the plan's UAAL increased for the reasons described above, the change in the actuarial valuation software to PROVAL resulted in a lower normal cost percentage. Therefore, the net result of the increase in the UAAL and the decrease in the normal cost percentage is an amortization period of 18.8 years.

In summary, this valuation reveals that the tangible assets plus future investment income received by the System and future contributions that will be provided by the members and the City of Austin will be adequate to pay the benefits provided by the state law governing the System as of December 31, 2001. In order for the System to have an adequate financing arrangement, contributions must be made that are sufficient to pay for the System's normal cost and amortize its unfunded actuarial accrued liability over an acceptable period of time. Based on the Texas State Pension Review Board guidelines and the actuarial assumptions and cost methods used in this valuation, periods of 25 years to 30 years are preferable and 40 years is the maximum.

The total contributions of 27% of covered payroll are sufficient to pay for the System's normal cost and provide an additional amount that will result in amortization of the unfunded actuarial accrued liability in 18.8 years. In addition, we believe that it is appropriate to assume that the police officers and the City will be able to maintain their commitment in future years to contribute 9% and 18%, respectively, of compensation into the System. Consequently, we are of the opinion that the System has an adequate financing arrangement.

Exhibit 1

Austin Police Retirement System
Actuarial Valuation Balance Sheets

	December 31, 2001	December 31, 1999*
1. Actuarial present value of future benefits		
a. Payable to those now receiving benefits or entitled to receive benefits	$ 126,231,618	$ 105,252,643
b. Payable to active members	376,344,983	279,564,124
c. Total	$ 502,576,601	$ 384,816,767
2. Actuarial present value of future normal cost contributions	$ 155,028,424	$ 107,596,614
3. Actuarial accrued liability (Item 1c-Item 2)	$ 347,548,177	$ 277,220,153
4. Actuarial value of assets	$ 284,761,203	$ 226,913,439
5. Unfunded actuarial accrued liability (UAAL) (Item 3-Item 4)	$ 62,786,974	$ 50,306,714
6. Total contributions (percent of payroll)	27.000%	27.000%
7. Normal cost (percent of payroll)	20.143%	20.203%
8. Percent of payroll available to amortize the UAAL	6.857%	6.797%
9. Annualized covered payroll	$ 69,706,749	$ 54,695,072
10. Present annual amount available to amortize the UAAL	$ 4,779,792	$ 3,717,624
11. Years to amortize the UAAL	18.8 Years	20.3 Years

*Reflects plan provisions effective September 1, 2001, and COLAs of 3% for pensioners effective both January 1, 2001 and January 1, 2002.

Exhibit 2

Austin Police Retirement System
Fifteen-Year Projection of Present Plan

Year	Fund at Beginning of Year	Contributions by City and Employees	Net Investment Income	Monthly Benefit Payments & Refunds	Estimated RETRO DROP Lump Sums	Fund at End of Year	Ratio of Fund to Payments	Increase in Fund for Year	
								Amount	Percent
1997	$ 162,927,075	$ 10,523,302	$ 19,784,502	$ 7,092,191	$ 205,479	$ 185,937,209	25.48	$ 23,010,134	14.12 %
1998	185,937,209	12,664,793	20,063,218	8,233,738	879,805	209,551,677	22.99	23,614,468	12.70
1999	209,551,677	14,048,633	36,935,854	9,221,426	438,297	250,876,441	25.97	41,324,764	19.72
2000	250,876,441	15,336,155	19,199,820	9,894,431	2,046,971	273,471,014	22.90	22,594,573	9.01
2001	273,471,014	16,914,200	-12,710,942	11,769,207	1,452,390	264,452,675	20.00	-9,018,339	-3.30
2002	264,452,675	18,820,822	21,251,000	12,845,216	3,605,962	288,073,319	17.51	23,620,644	8.93
2003	288,073,319	19,573,655	23,065,079	16,090,377	3,002,944	311,618,732	16.32	23,545,413	8.17
2004	311,618,732	20,356,601	24,920,353	17,677,215	2,908,025	336,310,446	16.34	24,691,714	7.92
2005	336,310,446	21,170,865	26,854,890	19,335,046	3,084,463	361,916,692	16.14	25,606,246	7.61
2006	361,916,692	22,017,700	28,869,184	21,002,311	3,119,175	388,682,090	16.11	26,765,398	7.40
2007	388,682,090	22,898,408	30,995,704	22,503,608	2,866,381	417,206,213	16.44	28,524,123	7.34
2008	417,206,213	23,814,344	33,251,886	24,080,794	2,848,832	447,342,817	16.61	30,136,604	7.22
2009	447,342,817	24,766,918	35,614,533	25,975,884	3,113,335	478,635,049	16.45	31,292,232	7.00
2010	478,635,049	25,757,595	38,054,255	28,086,286	3,585,041	510,775,572	16.13	32,140,523	6.72
2011	510,775,572	26,787,899	40,547,988	30,308,591	4,330,751	543,472,117	15.69	32,696,545	6.40
2012	543,472,117	27,859,415	43,115,152	32,404,448	4,520,405	577,521,831	15.64	34,049,714	6.27
2013	577,521,831	28,973,792	45,808,094	34,324,901	4,490,215	613,488,601	15.81	35,966,770	6.23
2014	613,488,601	30,132,744	48,694,362	36,038,071	3,712,823	652,564,813	16.42	39,076,212	6.37
2015	652,564,813	31,338,054	51,805,862	37,895,011	3,426,117	694,387,601	16.80	41,822,788	6.41
2016	694,387,601	32,591,576	55,123,529	39,875,727	3,402,823	738,824,156	17.07	44,436,555	6.40

A. Data for years 1997 through 2001 was taken from the annual reports for those years. Fund balance at beginning and end of year reflect the market value of the system's assets.

B. Assumptions for years 2002 through 2016:

1. Benefits are assumed to commence in accordance with the demographic assumptions used in this December 31, 2001 actuarial valuation.

2. Contributions will be 9% of pay by the members and 18% of pay by the city.

3. Pay, covered payroll and contributions to the system will increase 4% per year.

4. Investment income (net of expenses) will be 8% of the average fund balance in each year.

5. A 3% ad hoc COLA for pensioners as of January 1, 2002 was reflected but no ad hoc COLAs were assumed beginning January 1, 2003 or thereafter.

Exhibit 3

Austin Police Retirement System
Market Value of Assets as of December 31, 2001

Assets

Investments
Corporate Stocks	$ 105,806,557
International Stocks	51,736,728
Real Estate Interests	42,177,893
Short-Term Investment Funds	13,747,879
U.S. Government Securities	28,926,494
International Securities	2,576,526
Corporate Bonds	10,867,246
Partnership Interests	6,631,912
Total Investments	$ 262,471,235

Other Assets
Cash	$	163,075
Interest and Dividends Receivable		1,058,419
Contributions Receivable		788,591
Fixed Assets		493,097
Other Assets		4,052
Total	$	2,507,234

Total Assets	$ 264,978,469

Liabilities

Contributions Refundable	$	47,231
Other Liabilities		478,563
Total Liabilities	$	525,794

Net Market Value of Assets
(Assets Minus Liabilities) $ 264,452,675

Exhibit 4

Austin Police Retirement System
Comparison of Market Value Asset Allocation as of the Prior and Current Actuarial Valuation Dates

December 31, 2001

Domestic
Stocks
40%

International
Stocks
20%

Real Estate
& Partnerships
18%

Government
Sec.& Bonds
16%

Cash &
Equivalent
6%

December 31, 1999

Domestic
Stocks
40%

International
Stocks
23%

Real Estate
& Partnerships
18%

Government
Sec.& Bonds
15%

Cash &
Equivalent
4%
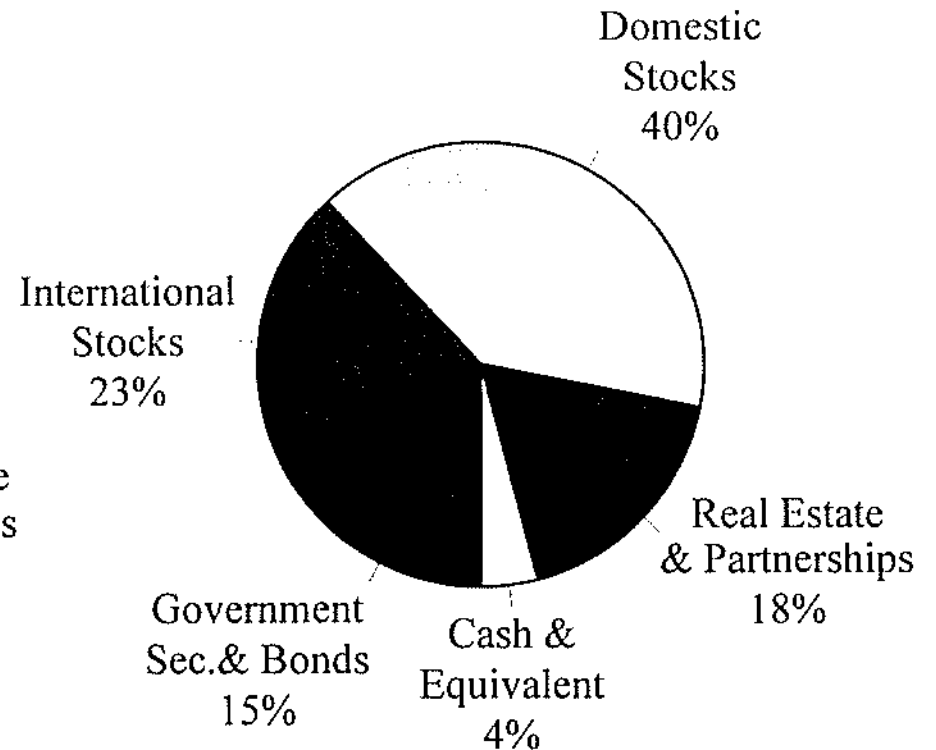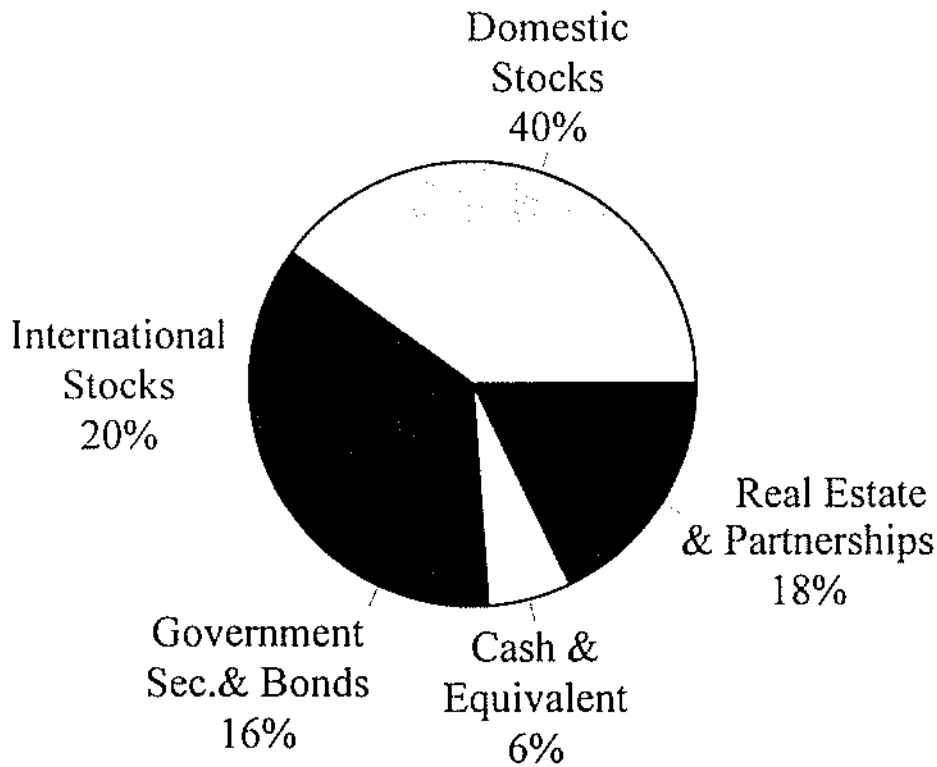
Exhibit 5

Austin Police Retirement System
Development of Actuarial Value of Assets

Calculation of 2001 Actuarial Investment Gain/(Loss)

Market Value of Assets as of December 31, 2000	$ 273,471,014
2001 City of Austin Contributions	11,178,204
2001 Officer Contributions	5,735,996
2001 Benefit Payments and Contribution Refunds	(13,221,597)
Expected Investment Return at 8.25% during 2001	22,710,660
Expected Market Value of Assets as of December 31, 2001	$ 299,874,277
Actual Market Value of Assets as of December 31, 2001	264,452,675
2001 Actuarial Investment Gain/(Loss)	$ (35,421,602)

Calculation of 2000 Actuarial Investment Gain/(Loss)

Market Value of Assets as of December 31, 1999	$ 250,876,441
2000 City of Austin Contributions	10,046,065
2000 Officer Contributions	5,290,090
2000 Benefit Payments and Contribution Refunds	(11,941,402)
Expected Investment Return at 8.25% during 2000	20,834,565
Expected Market Value of Assets as of December 31, 2000	$ 275,105,759
Actual Market Value of Assets as of December 31, 2000	273,471,014
2000 Actuarial Investment Gain/(Loss)	$ (1,634,745)

History of Actuarial Investment Gains/(Losses)

Year	Total Gain/(Loss)	Deferred Percentage	Deferred Gain/(Loss) Amount as of December 31, 2001
2001	$ (35,421,602)	80%	$ (28,337,282)
2000	(1,634,745)	60	(980,847)
1999	19,999,541	40	7,999,816
1998	5,048,924	20	1,009,785
			$ (20,308,528)

Actuarial Value of Assets

Market Value as of December 31, 2001	$ 264,452,675
Deferred Gain/(Loss) to be Recognized in Future	-(20,308,528)
Total	284,761,203
80% of Market Value as of December 31, 2001	211,562,140
120% of Market Value as of December 31, 2001	317,343,210
Actuarial Value as of December 31, 2001	$ 284,761,203

Exhibit 6

Austin Police Retirement System
Historical Comparisons of Market and Actuarial Asset Values
(Valuation as as of December 31)

$ in Millions

Market Value ☐ Actuarial Value
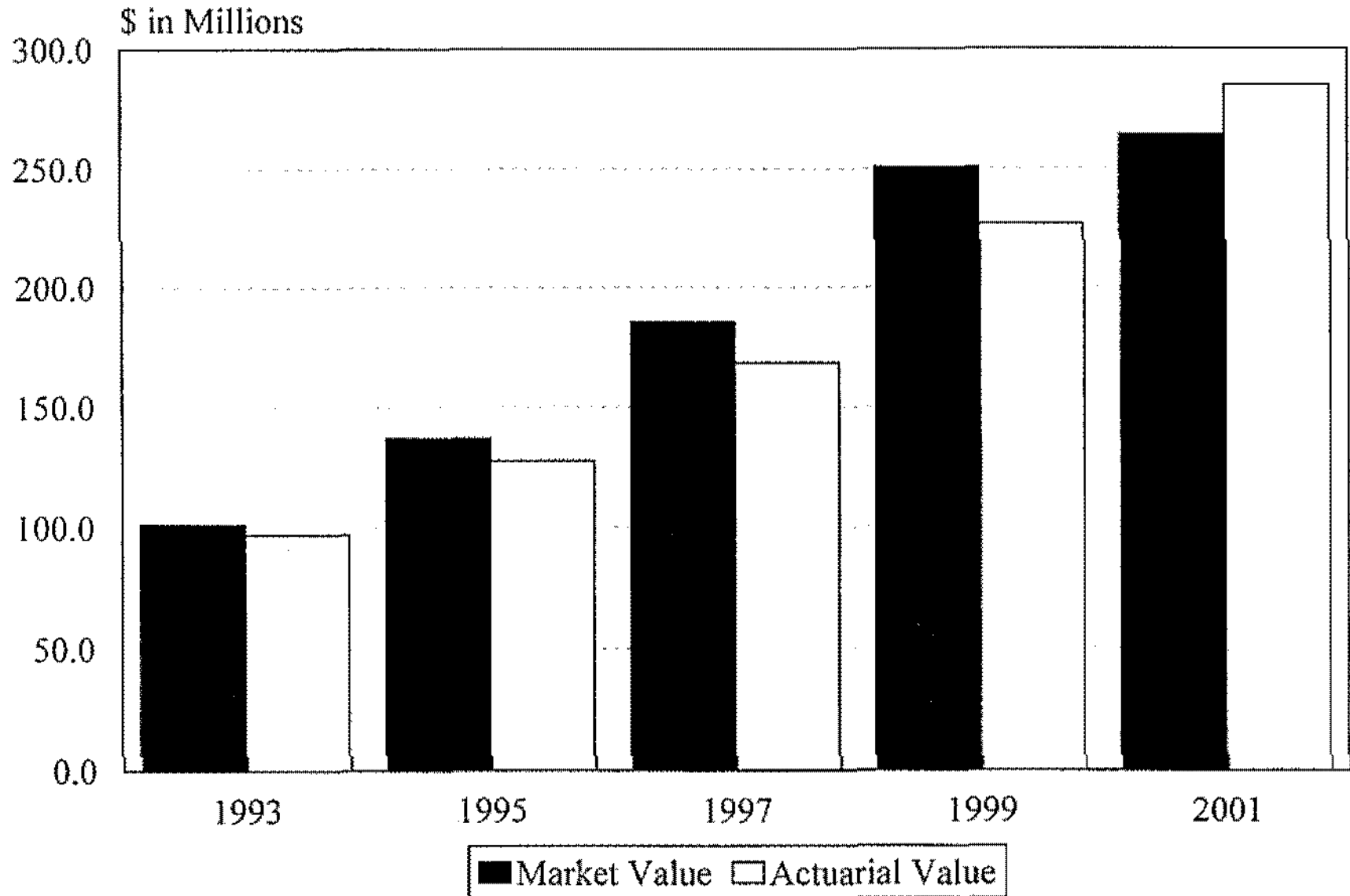
Exhibit 7

Austin Police Retirement System
Distribution of Police Officers by Age and Service

| Years of Service	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 or Over	Total
0	0	12	25	9	2	3	0	0	0	0	0	51
1	0	19	50	29	11	6	0	0	0	0	0	115
2	0	2	21	16	3	2	0	0	0	0	0	44
3	0	0	37	37	21	4	0	1	0	0	0	100
4	0	0	36	38	16	3	2	0	0	0	0	95
5	0	0	29	28	8	1	0	0	0	0	0	66
6	0	0	8	35	12	0	1	0	0	0	0	56
7	0	0	5	35	24	6	1	0	0	0	0	71
8	0	0	0	29	18	6	1	0	0	0	0	54
9	0	0	1	18	30	14	3	0	0	0	0	66
10	0	0	0	11	11	6	1	0	0	0	0	29
11	0	0	0	9	30	15	6	0	0	0	0	60
12	0	0	0	0	1	0	1	0	0	0	0	2
13	0	0	0	0	13	4	5	1	0	0	0	23
14	0	0	0	0	10	3	1	0	0	0	0	14
15	0	0	0	0	16	26	6	1	1	0	0	50
16	0	0	0	0	15	34	9	1	1	0	0	60
17	0	0	0	0	2	28	11	4	0	1	0	46
18	0	0	0	0	1	25	17	3	0	0	0	46
19	0	0	0	0	0	1	1	0	0	0	0	2
20-24	0	0	0	0	0	25	102	34	5	0	0	166
25-29	0	0	0	0	0	0	20	30	4	0	0	54
30-34	0	0	0	0	0	0	1	4	1	0	0	6
35-39	0	0	0	0	0	0	0	0	1	0	0	1
40-44	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0
50+	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	33	212	294	244	212	189	79	13	1	0	1277
Average Monthly Salary	$0	$2,999	$3,564	$3,977	$4,410	$5,137	$5,675	$5,883	$5,978	$5,099	0	$4,549

Exhibit 8

Austin Police Retirement System
Historical Summary of Growth in Number of Contributing Members
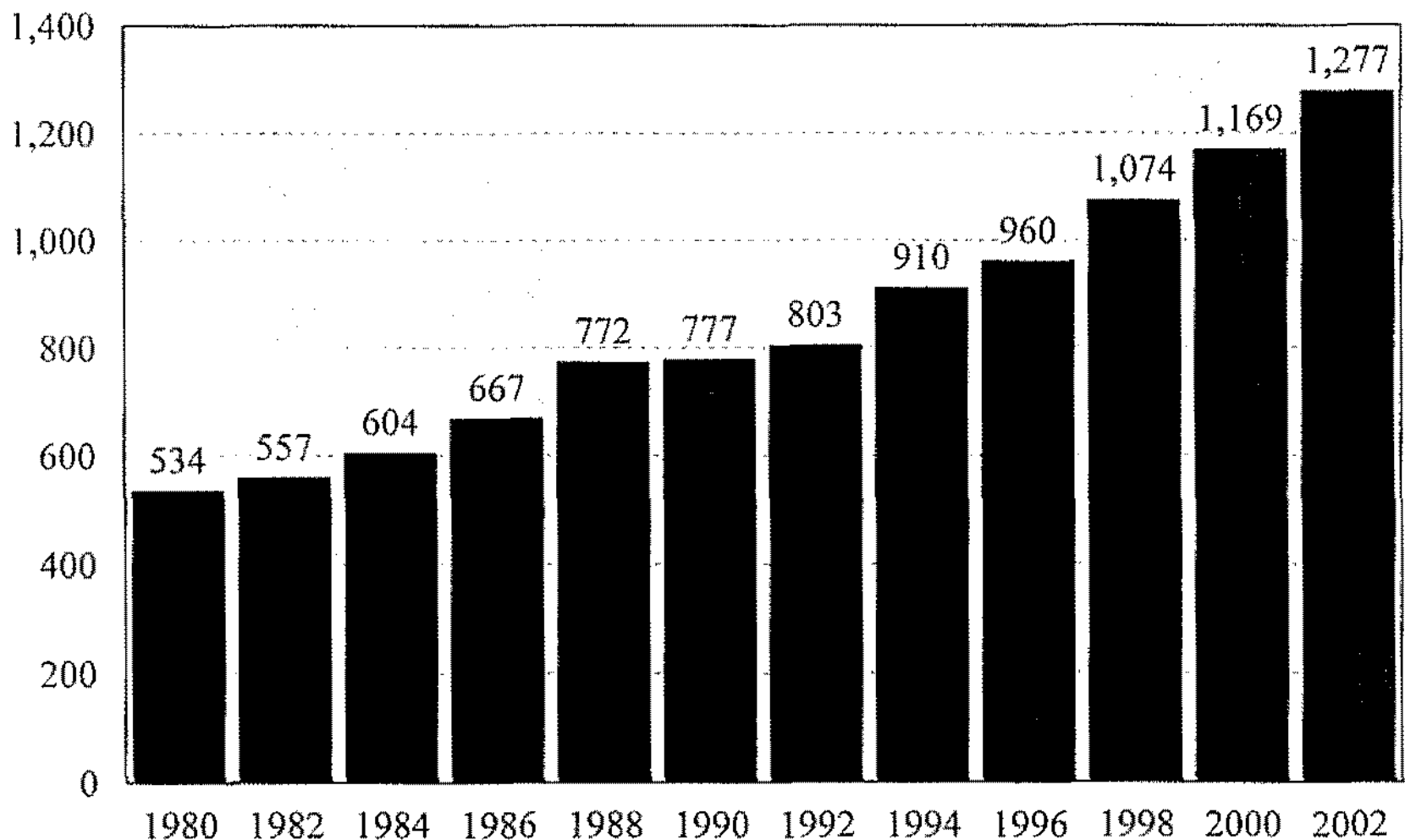
Average annual increase over:

6-year period 1996-2002: 4.9%
10-year period 1992-2002: 4.7%
20-year period 1982-2002: 4.2%

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Exhibit 9

Austin Police Retirement System
Breakdown by Sex of Number of Officers and Average Annual Rate
of Pay as Reported for the December 31, 2001 Valuation

Male Officers
88%

Female Officers
12%

$60,000

$55,000 — $54,461 $55,514 $54,586

$50,000

$45,000

$40,000

$35,000

$30,000 — Male   Female   Total
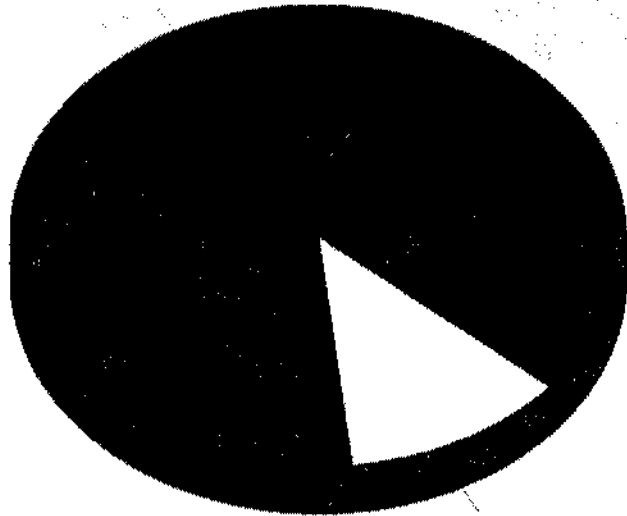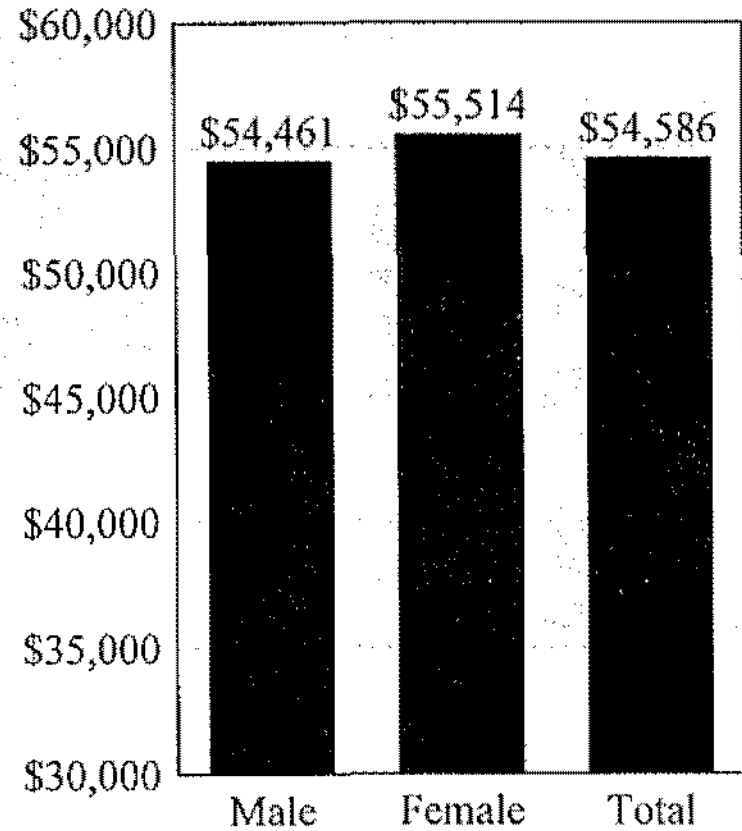
Exhibit 10

Austin Police Retirement System
Breakdown of Pensioners by Type and Annuity Option

Joint and 100%
24%

Joint and 50%
6%

Joint and
Two-Thirds
11%

Surviving
Beneficiary
8%

Vested
Terminations
3%   Other
2%

Straight Life
24%

Level Income Options
22%

Exhibit 11

Austin Police Retirement System
Summary Data of Active Police Officers and Pensioners
as Reported for the December 31, 2001 Valuation
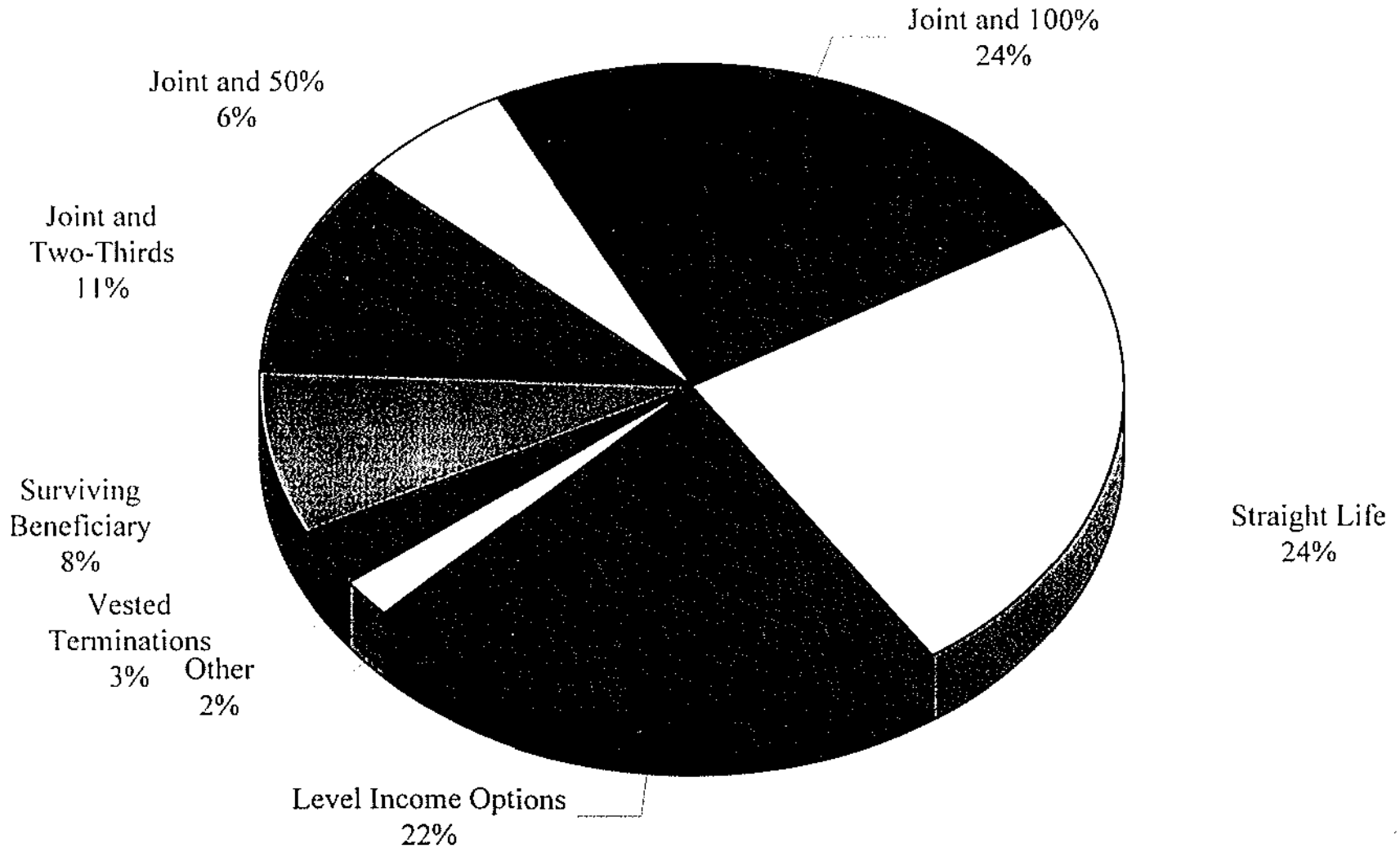
Active Police Officers	Male	Female	Total
Total Contributing Police Officers	1,125	152	1,277
Annualized Reported Payroll	$61,268,670	$8,438,079	$69,706,749
Average Annual Rate of Pay	$54,461	$55,514	$54,586

Pensioners	Number	Monthly Payment	Actuarial Present Value of Benefits
Service Retirements by Type of Annuity			
Straight Life	70	$253,465	$31,632,659
Joint and 100%	69	249,791	34,702,603
Joint and 50%	16	65,464	7,933,643
Joint and Two-Thirds Beneficiary	32	123,686	16,005,229
Joint and Two-Thirds Last Survivor	1	4,160	513,227
Level Income Straight Life	18	66,251	6,551,255
Level Income Joint and Two-Thirds	32	102,654	11,831,809
Level Income Joint and 100%	12	48,707	5,903,290
Fifteen Year Certain and Life	2	7,594	961,117
Total Service Retirements	252	921,772	116,034,832
Disability Retirements	3	5,267	598,242
Surviving Beneficiaries	24	75,949	8,797,009
Vested Terminated Officers	10	15,995	801,535
Total	289	$1,018,983	$126,231,618

Exhibit 12

Austin Police Retirement System
Historical Comparisons of Actuarial Accrued Liability for Active Officers and Pensioners
(Present Plan Valuations as of December 31)

$ in Millions

Legend: □ Active Officers ■ Pensioners

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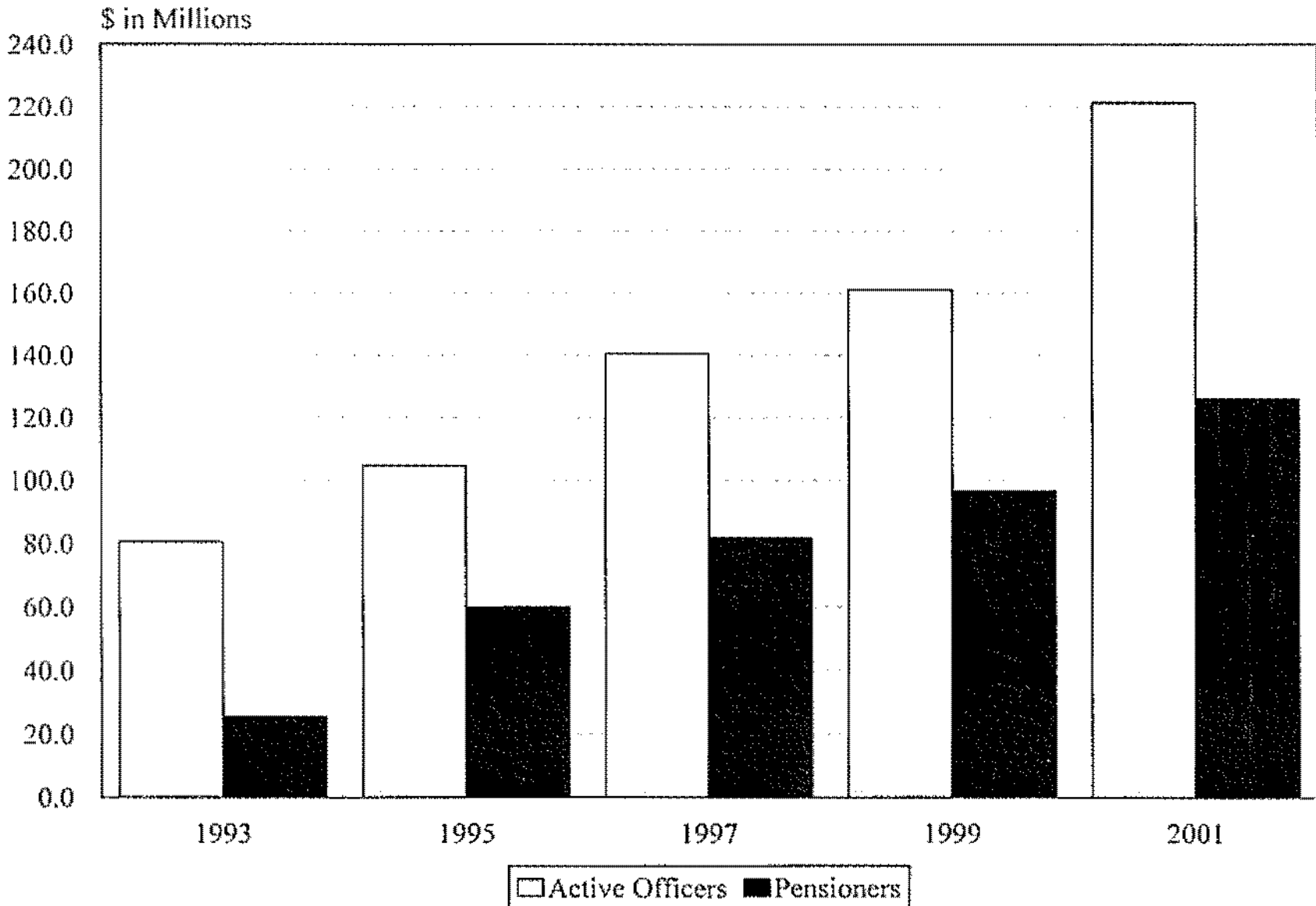
Exhibit 13

Austin Police Retirement System
Summary Plan Description

Effective Date

January 1, 1980

Effective Date of Most Recent Amendment

September 1, 2001

Administration

The fund is administered by a retirement board consisting of 11 members. Funds are held by the retirement board, as trustee.

Employees Included

All regular and permanent full-time police officers or cadets who are employed by the police department. In addition, employees of the police system's administrative staff are also included.

Employee Contributions

9% of each police officer's "Compensation Considered".

City Contributions

18% of "Compensation Considered" for all "Employees Included" effective as of October 1, 1996 and thereafter.

Service Considered

The number of months during which a member is required to make and does make prescribed contributions plus any creditable service received as a result of the provisions for establishing credit for certain military service, cadet service, probationary service following the commission date when no contributions were made or reinstating previously forfeited service.

Exhibit 13 (continued)

Austin Police Retirement System
Summary Plan Description

Compensation Considered

Basic hourly earnings consisting of base pay and longevity pay.

Average Final Compensation

The highest monthly average of the "Compensation Considered" for 36 months of the last 120 months during which the member contributed to the system or during the months of service for which he did contribute, if less than 120.

Normal Retirement Date

The first day of the month following the earliest month in which (a) the member has completed at least 23 years of creditable service not reflecting any military service credit; or (b) the member has attained age 55 and completed at least 20 years of creditable service; or (c) the member has reached age 62.

Normal Service Retirement Benefit

A member is eligible for a normal service retirement benefit after having reached his normal retirement date. The monthly annuity, payable as a life annuity (modified cash refund), is 3.00% of "Average Final Compensation" multiplied by years and months of "Service Considered."

Disability Benefit

A member is eligible for a disability benefit at any age provided he has completed ten years of service, because of total and permanent disability from any cause. A member with less than 10 years of service is also eligible for a disability benefit if his disability is total and permanent and is the result of his duties as a police officer. The annuity is computed considering service and compensation to date of disability; however, not less than 20 years of service will be used for an occupational disability.

Exhibit 13 (continued)

Austin Police Retirement System
Summary Plan Description

Death Benefits

If death occurs before eligibility for retirement, the member's beneficiary receives a benefit equal to twice the accumulated member contributions made plus allowable interest.

If death occurs before retirement but after eligibility for retirement and the member had elected an optional annuity, the member's beneficiary will be entitled to a monthly annuity calculated as if the member had retired at the end of the month in which he died. A $7,500 lump-sum death benefit is also payable to the beneficiary.

If death occurs before retirement but after eligibility for retirement and prior to selection of an optional annuity and, if the member leaves a lawfully married spouse surviving, then the surviving spouse may select an optional annuity or select a lump sum benefit equal to twice the accumulated member contributions made plus allowable interest. If the lawfully married surviving spouse dies before having received benefits equal to the amount of accumulated member contributions, the excess of such accumulated deposits over the benefits actually received will be refunded in one sum to the member's estate. If the member leaves no surviving spouse, then the member's designated beneficiary, or if no beneficiary exists, the executor or administrator of the estate, may select either the Fifteen Year Certain and Life Annuity or a lump sum benefit equal to twice the accumulated member contributions made plus allowable interest. If an optional annuity is selected in lieu of a lump sum benefit, a $7,500 lump sum death benefit is payable to the beneficiary.

If death occurs after retirement, the member's beneficiary receives a benefit equal to the excess, if any, of the accumulated member contributions plus allowable interest over the benefits actually received. A $7,500 lump-sum death benefit is also payable upon the death of a retired member. Under certain optional pension forms the beneficiary will also be entitled to receive a monthly annuity for life or for the remainder of a certain period.

Vested Benefit

If the member has 10 years of service, he may elect to leave his accumulated deposits with the retirement system. He will be entitled to a deferred benefit commencing at the normal retirement date based upon his service and compensation prior to termination.

Exhibit 13 (continued)

Austin Police Retirement System
Summary Plan Description

Termination of Employment

A member terminating employment for reasons other than service retirement, disability retirement or death will receive an amount equal to his contributions to the retirement system and accumulated interest. Interest will be credited at the end of each calendar year at a rate determined by the system's board of trustees on the member's beginning-of-year account balance.

Optional Payments

A retiring member may elect an optional form of annuity payment rather than the standard Life Annuity. Such options are a Joint and 100% to Survivor, Joint and 50% to Survivor, Joint and Two-Thirds to Survivor, Joint and Two-Thirds to Last Survivor or 15-Year Certain and Life Annuity.

A retroactive deferred retirement option plan (RETRO DROP) can also be elected by retiring members meeting certain eligibility requirements. This option provides the member with a monthly annuity and a lump sum. The RETRO DROP benefit computation date elected by the member may not be earlier than the date the member completed 23 years of creditable service not reflecting any military service credit or may not be earlier than 36 months prior to the date of retirement.

Postretirement Cost-of-Living Increases

The Board may authorize an annual cost-of-living adjustment, subject to actuarial approval, not to exceed 6% per year. Postretirement benefit increases will automatically be provided when the system's benefit formula as a percent of average compensation for years of service increases.

Exhibit 14

Austin Police Retirement System
Summary of Actuarial Methods and Assumptions

1. Actuarial Cost Method — Entry Age Actuarial Cost Method

2. Amortization of Unfunded Actuarial Accrued Liability — The unfunded actuarial accrued liability is assumed to be funded by level percent contributions of employee payroll based on annual payroll growth of 4% per year due to general wage increases.

3. Asset Valuation — Gains and losses in the market value of assets, based on the difference between the actual rate of return and the assumed rate of return, are recognized in the actuarial value over five years. The actuarial value will not be less than 80% or more than 120% of the market value of assets.

4. Investment Return (Interest Rate) — 8.0% per year, net of expenses

5. Inflation 4% per year

6. Salary Increase Due to General Wage Increase — 4% per year

7. Salary Increase Due to Promotion and Longevity Increases — 2.8% per year average. See Exhibit 16 for the promotion and longevity only salary increases by year of service.

8. Total Salary Increase — 6.8% per year average. See Exhibit 16 for the total salary increases by year of service.

9. Interest Credited on Officer's Accumulated Contributions — 5% per year

10. Mortality
    a. Active — UP-1994 Mortality Tables for males and females with no projections
    b. Retired — UP-1994 Mortality Tables for males and females with no projections
    c. Disabled — 85% of 1965 RRB Disabled Annuitants Mortality Table

11. Retirement Rates — Expected average retirement age of 52.5. See Exhibit 17 for age-related rates.

12. Withdrawal Rates — Expected average annual number of terminations with a refund of contributions of 27.8 per year based on the officers included in the December 31, 2001 valuation. See Exhibit 18 for service-related rates.

13. Disability Rates — See Exhibit 19 for age-related rates.

Exhibit 15

Austin Police Retirement System
Changes in Actuarial Methods and Assumptions

	December 31, 2001 Actuarial Assumption	December 31, 1999 Actuarial Assumption
Investment Return (Interest Rate) per year, net of expenses	8.00%	8.25%
Salary Increase due to Promotion and Longevity (Primarily Step) Increase	2.8% per year average (See Exhibit 16)	2.6% per year average (See Exhibit 16)
Salary Increase Total	6.8% per year average	6.6% per year average
Retirement Rates	Rates which produce an average expected retirement age of 52.5* (See Exhibit 17)	Rates which produce an average expected retirement/RETRO DROP age of 50.6* (See Exhibit 17)

* Based on those officers included in the December 31, 2001 valuation.

Exhibit 16

Austin Police Retirement System
Salary Rate of Increase from Year t-1 to Year t

| Year of Service t | Used in December 31, 2001 Actuarial Valuation | | Used in December 31, 1999 Actuarial Valuation | |
| | Salary Increases Due to | | Salary Increases Due to | |
	Promotion and Longevity Increases	Total Increases	Promotion and Longevity Increases	Total Increases
1	18.0%	22.0%	13.8%	17.8%
2	11.2	15.2	14.9	18.9
3	5.8	9.9	8.5	12.5
4	0.9	4.9	0.9	4.9
5	0.9	4.9	0.9	4.9
6	7.1	11.1	5.1	9.1
7	0.5	4.5	0.5	4.5
8	0.5	4.5	0.5	4.5
9	0.5	4.5	0.5	4.5
10	7.1	11.1	7.1	11.1
11	0.3	4.3	0.3	4.3
12	0.3	4.3	0.3	4.3
13	0.3	4.3	0.3	4.3
14	7.1	11.1	7.1	11.1
15	0.2	4.2	0.2	4.2
16	7.2	11.2	0.2	4.2
17	0.2	4.2	0.2	4.2
18	0.1	4.1	7.0	11.0
19	0.1	4.1	0.1	4.1
20	0.1	4.1	0.1	4.1
21	0.1	4.1	0.1	4.1
22	0.1	4.1	0.1	4.1
23	0.1	4.1	0.1	4.1
24	0.1	4.1	0.1	4.1
25	0.1	4.1	0.1	4.1
26-45	0.0	4.0	0.0	4.0

Exhibit 17
Austin Police Retirement System
Service Retirement Rates Per 1,000 Members

Age	Used In Analysis of Legislative Changes Effective September 2001 for December 31, 1999 Actuarial Valuation — Entry Age Group						Service	Used for December 31, 2001 Actuarial Valuation — For Entry Ages Under 32			Age	For Entry Ages 33 and Above		
	22 & Under	23-27	28-32	33-37	38-42	43 & Over		22 & Under	23-27	28-32		33-37	38-42	43 & Over
43	500						23	50	75	100	43			
44	500						24	200	200	200	44			
45	500						25	250	250	250	45			
46	500						26	300	300	300	46			
47	500						27	500	400	350	47			
48	500	500					28	500	400	400	48			
49	500	500					29	500	400	500	49			
50	500	400					30	500	500	500	50			
51	500	400					31	500	500	500	51			
52	500	400					32	500	500	1000[2]	52			
53	500	400	500				33	500	500		53			
54	500	400	500				34	500	500		54			
55	600	500	325	600			35	600	500		55	200		
56	600	500	325	400			36	600	500		56	250		
57	600	500	350	300			37	600	1000[2]		57	300		
58	600	500	350	300	300		38	600			58	350		
59	600	500	350	300	300		39	600			59	500		
60	1000	1000	1000	1000	325		40	600			60	1000	500	
61					325		41	600			61		350	
62					350	800	42	1000[2]			62		350	800
63					350	400					63		350	400
64					350	400					64		350	400
65					1000	1000					65		1000	1000
Overall Weighted Average Expected Retirement/RETRO DROP Age[3]						50.6	Overall Weighted Average Expected Retirement Age[3]							52.5

[1] Additional assumptions include 75% of those retiring after the first year eligible to retire will elect the RETRO DROP and are assumed to elect the maximum RETRO DROP period allowable.
[2] 100% retirement rate will be effective at age 60 if earlier.
[3] Based on December 31, 2001 officer data.

Rudd and Wisdom, Inc.

Exhibit 18

Austin Police Retirement System
*Withdrawal Rates Per 1,000 Members**

Years of Service	Withdrawal Rates
0	100
1	20
2	20
3	20
4	20
5	20
6	20
7	20
8	20
9	20
10	20
11	17
12	14
13	10
14	5
15	0
16	0
17	0
18	0
19	0

Exhibit 19

Austin Police Retirement System
*Disability Rates Per 1,000 Members**

Age	Disability Rates	Age	Disability Rates
20	0.14	40	0.92
21	0.15	41	1.14
22	0.16	42	1.32
23	0.17	43	1.48
24	0.18	44	1.73
25	0.19	45	2.09
26	0.21	46	2.55
27	0.23	47	2.98
28	0.25	48	3.34
29	0.28	49	3.62
30	0.31	50	3.79
31	0.35	51	3.92
32	0.40	52	4.04
33	0.45	53	4.24
34	0.49	54	4.56
35	0.52	55	4.90
36	0.54	56	5.32
37	0.57	57	5.86
38	0.62	58	6.60
39	0.73	59	7.53
		60	9.11
		61	11.72
		62 and later	0.00

* Rates are for disability due to all causes, and occupational disability rates are assumed to be 55% of all cause rates.

Exhibit 20

Austin Police Retirement System
Definitions

1. *Actuarial cost method* - A procedure for determining the actuarial present value of pension plan benefits and for developing an actuarially equivalent allocation of such value to time periods in the form of a normal cost contribution rate and an actuarial accrued liability.

2. *Actuarially equivalent* - Of equal actuarial present value, determined as of a given date with each value based on the same set of actuarial assumptions.

3. *Actuarial present value* - The value of an amount or series of amounts payable or receivable at various times in the future, determined as of a given date (the valuation date) by the application of the actuarial assumptions.

4. *Entry Age Actuarial Cost Method* - A method under which the actuarial present value of projected benefits of each individual included in the valuation is allocated on a level basis over the earnings of the individual between the entry age and assumed exit. Entry age is calculated as the difference between the attained age and the years of service credit as of the valuation date. Service is assumed to be continuous.

5. *Normal cost contribution rate* - That portion of the actuarial present value of benefits which is allocated to a valuation year by the Entry Age Actuarial Cost Method. It is expressed as a percent of compensation and is equal to the actuarial present value at hire of projected benefits divided by the actuarial present value at hire of anticipated future compensation. It is calculated for each individual and summed for the entire group.

6. *Actuarial accrued liability* - That portion, as determined by the Entry Age Actuarial Cost Method, of the actuarial present value of benefits which is not provided for by future normal cost contributions.

7. *Unfunded actuarial accrued liability* - The excess of the total actuarial present value of future benefits over the sum of the tangible assets and the actuarial present value of future normal cost contributions.

8. *Actuarial value of assets* - The value of cash, investments, and other property belonging to a pension plan, as used by the actuary for the purpose of an actuarial valuation.

9. *Actuarial gain or loss* - A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates.

Exhibit 21

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 25
Required Supplementary Information
for the System's Financial Statements for Fiscal Year
Ending December 31, 2001

I. Schedule of Funding Progress

Actuarial Valuation Date[1]	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Annual Covered Payroll[2] (c)	UAAL as a Percentage of Covered Payroll ((b - a)/c)
12/31/97[3,4]	$168,601,584	$222,703,396	$54,101,812	75.7%	$47,188,812	114.6%
12/31/99[3,5]	226,913,439	257,850,162	30,936,723	88.0	54,695,072	56.6
12/31/01[3,6]	284,761,203	347,548,177	62,786,974	81.9	69,706,749	90.1

[1] The System has biennial valuations.
[2] The covered payroll is based on the annual rate of base pay and longevity pay as of the valuation date.
[3] Economic and demographic assumptions were revised.
[4] Changes in plan benefit provisions were effective September 1, 1997.
[5] Changes in plan benefit provisions were effective September 1, 1999.
[6] Changes in plan benefit provisions were effective September 1, 2001.

II. Schedule of Employer Contributions

Plan Year Ended December 31	Annual Contribution As a Fixed Percentage of Payroll[1]	Annual Required Contribution[2]	Percentage Contributed
1996	16/18%	$ 6,154,935	100%
1997	18	6,952,258	100
1998	18	8,254,861	100
1999	18	9,288,148	100
2000	18	10,046,065	100
2001	18	11,178,204	100

[1] When two percentages are shown for a year, the first one was effective for the months January through September, and the second one was effective for the months October through December.
[2] The annual required contribution is based on actual covered payroll.

—————— Rudd and Wisdom, Inc. ——————

Exhibit 21 (continued)

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 25
Required Supplementary Information
for the System's Financial Statements for Fiscal Year
Ending December 31, 2001

III. Notes to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation date	December 31, 2001
Actuarial cost method	Entry Age
Amortization method	Level percentage of projected payroll, open
Remaining amortization period	18.8 years
Asset valuation method	5-year smoothed market value
Actuarial assumptions:	
- Investment rate of return, net of expenses, compounded annually	8.0%
- Projected salary increases including promotion and longevity	4.0% to 22.0% per year, averaging 6.8%
- Inflation rate per year	4%
- Postretirement cost-of-living adjustments	None

IV.   **Actuarial Information Needed for Notes to the Financial Statement as Required by Paragraph 32 of GASB 25 (Additional Information Required by Paragraph 32 Should be Provided by the System's Auditors)**

A.   PLAN DESCRIPTION

The Board of Trustees of the City of Austin Police Retirement System is the administrator of a single-employer defined benefit pension plan. The System is considered part of the City of Austin's financial reporting entity and is included in the City's financial reports as a pension trust fund.

The System was originally established in 1979 by a City Council ordinance. Effective August 1991, the System is governed by state law with plan amendments made by the Legislature of the State of Texas. The System provides retirement, death, disability and withdrawal benefits. Benefits vest after 10 years of credited

Exhibit 21 (continued)

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 25
Required Supplementary Information
for the System's Financial Statements for Fiscal Year
Ending December 31, 2001

service. Participants may retire with 23 years of service excluding any military service credit regardless of age, or at age 55 with 20 years of service or at age 62. The monthly benefit at retirement is payable as a life annuity (modified cash refund). As of December 31, 2001, the monthly benefit is equal to 3.0% of the highest 36-month average salary multiplied by years and months of service. Effective September 1, 2001, the RETRO DROP provisions were changed to require that a participant must have 23 years of creditable service with the retirement system excluding any military service credit on the date the participant elects for the RETRO DROP benefit computation date.

Distributions to officers or their beneficiaries are also available in the event of total and permanent disability, provided the officer has completed 10 years of service or the injury was sustained during the performance of employment duties, or upon death. The terms of benefit payments are determined by certain elections made by the officer, their level of earnings and length of service. Payments to officers or their beneficiaries may be increased or decreased annually on an ad hoc basis by the amount of increase or decrease in the Consumer Price Index, limited to 6% per year, and subject to the approval of the Retirement Board and the actuary.

Participating members in the System include full-time police officers and cadets employed by the police department of the City and employees of the System. The following membership status of the System was reflected in the actuarial valuation as of December 31, 2001:

Retirees and beneficiaries currently receiving benefits (279) and terminated employees entitled to future monthly benefits (10)	289
Current participating members	1,277
Total	1,566

Exhibit 21 (continued)

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 25
Required Supplementary Information
for the System's Financial Statements for Fiscal Year
Ending December 31, 2001

B.   CONTRIBUTIONS

The System is funded by biweekly contributions from the basic compensation, consisting of base pay and longevity pay, of police officers and by contributions from the City.   Under the provisions in effect on December 31, 2001, participants are required to contribute 9% of their basic compensation to the System.   The City is required to make contributions equal to 18% of basic compensation and may authorize additional contributions.

The City contribution rate is required by the state law governing the System as of December 31, 2001 and may be changed by amendment made by the Legislature of the State of Texas.   The participant contribution rate must be at least 6% but was increased to 9% effective October 1993 by a recommendation of the Retirement Board and an approving vote of the participating members in accordance with the state law governing the System.   The participant contribution rate may be changed by amendment made by the Legislature of the State of Texas or by appropriate actions of the Board and the participating members in accordance with the state law governing the System.

While contribution requirements are not actuarially determined, state law requires that each plan of benefits adopted by the System must be approved by a qualified actuary.   The actuary certifies that the contribution commitment by the police officers and the City provides an adequate financing arrangement.   Using the entry age actuarial cost method, the System's normal cost is determined as a percentage of payroll.   The excess of the total contribution rate over the normal cost rate is used to amortize the System's unfunded actuarial accrued liability, and the number of years needed to amortize the System's unfunded actuarial accrued liability is determined using an open, level percentage of payroll method.   Based on the actuarial valuation as of December 31, 2001 and the Plan provisions at that date, the normal cost was 20.143% of pay and the amortization period was 18.8 years.

Exhibit 22

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 27
Notes to the Financial Statements for the City of Austin
for the Fiscal Year Ending September 30, 2002

I. Annual Pension Cost

For the fiscal year ending September 30, 2002, the City's annual pension cost of $___*___ for the Austin Police Retirement System was equal to the City's required and actual contributions. While the required contributions were not actuarially determined but were a fixed 18% of the basic compensation, consisting of base pay and longevity pay of police cadets and police officers, the plan of benefits has been approved by the Retirement Board's actuary as having an adequate financing arrangement. The required contributions were reflected in the December 31, 2001 actuarial valuation, which satisfied the parameters of the Governmental Accounting Standards Board (GASB) Statement No. 27. The Entry Age Actuarial Cost Method was used, with the normal cost calculated as a level percentage of payroll.

The actuarial assumptions included an investment return assumption of 8.0% per year (net of administrative expenses), projected salary increases ranging from 4% to 22% and averaging 6.8% per year, and no postretirement cost-of-living adjustments. An inflation assumption of 4% per year is included in the investment return and salary increase assumptions. The actuarial value of assets was determined using a method that smooths the effects of short-term volatility in the fair value of investments over a five-year period. The unfunded actuarial accrued liability (UAAL) is amortized with the excess of the total contribution rate over the normal cost rate. The number of years needed to amortize the UAAL is determined using an open, level percentage of payroll method, assuming that the payroll will increase 4% per year, and was 18.8 years in the December 31, 2001 actuarial valuation.

II. Three-Year Trend Information for the Austin Police Retirement System

Fiscal Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Contribution as a Percentage of Payroll	Net Pension Obligation
09/30/2000	$___*___	100%	18%	$0
09/30/2001	___*___	100	18	0
09/30/2002	___*___	100	18	0

*City will be able to determine these amounts from their accounting system since there is no net pension obligation.

Exhibit 22

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 27
Notes to the Financial Statements for the City of Austin
for the Fiscal Year Ending September 30, 2002

III. Schedule of Funding Progress

Actuarial Valuation Date[1]	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Annual Covered Payroll[2] (c)	UAAL as a Percentage of Covered Payroll ((b - a)/c)
12/31/97[3,4]	$168,601,584	$222,703,396	$54,101,812	75.7%	$47,188,812	114.6%
12/31/99[3,5]	226,913,439	257,850,162	30,936,723	88.0	54,695,072	56.6
12/31/01[3,6]	284,761,203	347,548,177	62,786,974	81.9	69,706,749	90.1

[1] The System has biennial valuations.
[2] The covered payroll is based on the annual rate of base pay and longevity pay as of the valuation date.
[3] Economic and demographic assumptions were revised.
[4] Changes in plan benefit provisions were effective September 1, 1997.
[5] Changes in plan benefit provisions were effective September 1, 1999.
[6] Changes in plan benefit provisions were effective September 1, 2001.

IV. Actuarial Information Needed for Notes to the Financial Statement as Required by Paragraph 20 of GASB 27

A. PLAN DESCRIPTION

The Board of Trustees of the City of Austin Police Retirement System is the administrator of a single-employer defined benefit pension plan. The System is considered part of the City of Austin's financial reporting entity and is included in the City's financial reports as a pension trust fund. The Plan issues a stand alone report that is available from the Retirement Board.

The System was originally established in 1979 by a City Council ordinance. Effective August 1991, the System is governed by state law with plan amendments made by the Legislature of the State of Texas. The System provides retirement, death, disability and withdrawal benefits. Benefits vest after 10 years of credited service. Participants may retire with 23 years of service excluding any military service credit regardless of age, or at age 55 with 20 years of service or at age 62. The monthly benefit at retirement is payable as a life annuity (modified cash refund). As of December 31, 2001, the monthly benefit is equal to 3.0% of the highest 36-month average salary multiplied by years and months of service.

— Rudd and Wisdom, Inc. —

Exhibit 22

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 27
Notes to the Financial Statements for the City of Austin
for the Fiscal Year Ending September 30, 2002

Effective September 1, 2001, the RETRO DROP provisions were changed to require that a participant must have 23 years of creditable service with the retirement system excluding any military service credit on the date the participant elects for the RETRO DROP benefit computation date.

Distributions to officers or their beneficiaries are also available in the event of total and permanent disability, provided the officer has completed 10 years of service or the injury was sustained during the performance of employment duties, or upon death. The terms of benefit payments are determined by certain elections made by the officer, their level of earnings and length of service. Payments to officers or their beneficiaries may be increased or decreased annually on an ad hoc basis by the amount of increase or decrease in the Consumer Price Index, limited to 6% per year, and subject to the approval of the Retirement Board and the actuary.

Participating members in the System include full-time police officers and cadets employed by the police department of the City and employees of the System. The following membership status of the System was reflected in the actuarial valuation as of December 31, 2001:

Retirees and beneficiaries currently receiving benefits (279) and terminated employees entitled to future monthly benefits (10)	289
Current participating members	1,277
Total	1,566

B.   CONTRIBUTIONS

The System is funded by biweekly contributions from the basic compensation, consisting of base pay and longevity pay, of police officers and by contributions from the City. Under the provisions in effect on December 31, 2001, participants are required to contribute 9% of their basic compensation to the System. The City is required to make contributions equal to 18% of basic compensation and may authorize additional contributions.

The City contribution rate is required by the state law governing the System as of December 31, 2001 and may be changed by amendment made by the Legislature of the State of Texas. The participant contribution rate must be at least 6% but was

Exhibit 22

Austin Police Retirement System
Disclosures in Accordance with GASB Statement No. 27
Notes to the Financial Statements for the City of Austin
for the Fiscal Year Ending September 30, 2002

increased to 9% effective October 1993 by a recommendation of the Retirement Board and an approving vote of the participating members in accordance with the state law governing the System. The participant contribution rate may be changed by amendment made by the Legislature of the State of Texas or by appropriate actions of the Board and the participating members in accordance with the state law governing the System.

While contribution requirements are not actuarially determined, state law requires that each plan of benefits adopted by the System must be approved by a qualified actuary. The actuary certifies that the contribution commitment by the police officers and the City provides an adequate financing arrangement. Using the entry age actuarial cost method, the System's normal cost is determined as a percentage of payroll. The excess of the total contribution rate over the normal cost rate is used to amortize the System's unfunded actuarial accrued liability, and the number of years needed to amortize the System's unfunded actuarial accrued liability is determined using an open, level percentage of payroll method. Based on the actuarial valuation as of December 31, 2001 and the Plan provisions at that date, the normal cost was 20.143% of pay and the amortization period was 18.8 years.